

U.S. Department  
of Transportation

United States  
Coast Guard



Commandant  
United States Coast Guard

2100 Second St. S.W.  
Washington, DC 20593-0001  
Staff Symbol: G-NRS-3  
Phone: 202/267-1948

RECEIVED  
MAR 17 1995  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY  
16 MAR 1995

Before the Federal Communications Commission  
Washington, DC 20554

In the Matter Of )

) FCC Docket No. 94-102

Revision of the Commission's rules )  
to ensure compatibility with )  
enhanced 911 emergency calling systems)

RM-8143

REPLY COMMENTS OF  
THE INTERAGENCY COMMITTEE ON SEARCH AND RESCUE (ICSAR)

The Interagency Committee on Search and Rescue (ICSAR) herewith submits reply comments regarding comments received by the FCC on the subject NPRM. The member agencies of ICSAR are the Federal Communications Commission, the Department of Transportation, the Department of Defense, the Department of Commerce, the Federal Emergency Management Agency, the National Aeronautics and Space Administration, and the Department of the Interior.

ICSAR REPLY COMMENTS

1. ICSAR notes industry opposition to requirements contained in the NPRM by the time period specified (GTE, Bell Atlantic, AT&T and others). We cannot judge the validity of these arguments; however, we urge the Commission to adopt comprehensive milestones for partial implementation of requirements and target dates for completion of any other related preparatory or advisory work. It appears that the first phase location requirement and call back number<sup>1</sup> can be implemented in the near term, so ICSAR urges the Commission to require this action.

2. TRW, Motorola and others do not support the inclusion of Mobile Satellite Services (MSS) in the requirements for E911 compatibility. ICSAR urges the Commission to include MSS (big LEO) systems in the requirements for wireless providers to provide compatibility with enhanced 911 emergency calling systems. In applications for frequency assignment, the MSS applicants pointed out the public service benefits of their proposed systems to aid persons in distress, particularly in remote areas. ICSAR agrees with this objective. MSS phones will be used in remote areas by persons in distress. To provide effective search and rescue (SAR) support it is essential to obtain location information from MSS systems to route distress calls to the proper response agency. A distress call received

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from an MSS telephone could originate anywhere in the view of the satellite, perhaps across the country from the MSS earth station. This is particularly important for SAR cases in wilderness and remote areas with few landmarks available. The identity of the caller is necessary to mitigate false alarms and hoax calls while facilitating the rescue effort.

3. Several commenters asked the Commission to defer implementation of some or all of its rules and establish an advisory committee to make recommendations for specific standards before implementing new rules. The Commission proposed that only general performance criteria should be adopted at this time, and that more extensive technical requirements may be more appropriately addressed by industry standards committees (NPRM at para. 40); this proposal was supported by Texas ACSEC. Though we do not oppose establishment of an advisory committee, we do not believe that adoption of the general performance criteria proposed in the NPRM should be withheld pending committee recommendations. If the Commission decides to form an industry advisory group, ICSAR requests that SAR agencies and MSS providers be included, and that the Commission maintain oversight and establish reporting dates.

4. "Little LEO"<sup>2</sup> MSS providers (ORBCOMM, Starsys, LEOONE USA Corp.) asked the Commission to exclude them from requirements rule.<sup>3</sup> Since these systems appear to be ideally suited to SAR needs, ICSAR recommends that these non-voice MSS systems be included in the rules with possibly a later date for implementation, depending on capability of handling data transmissions. If specific standards for automatic routing of caller information to the appropriate PSAP or rescue coordination center are not available at that time, the wireless provider should provide operators to route the emergency calls. We understand that NENA is currently compiling a database of PSAP information which it intends to make available to wireless service providers.

5. ICSAR agrees with responses questioning advisability of the Commission's second phase implementation for location information (CTIA, Motorola, Pacific and Nevada Bell). This information would appear to be only a marginal improvement over the first phase results and not in any way contributing to the accuracy requirements of the third phase. Responders also indicated that the accuracy of location by this approach was subject to errors. MSS systems would not lend themselves to the second phase methods of location since the signals are received directly by the satellite in lieu of a ground RF link.

6. ICSAR strongly supports NOT requiring user validation for 911 calls. A number of responses indicate that this is already being

done or can be readily implemented (NYNEX, Vanguard, CMT Partners). The need for 911 access by persons away from their "home" area can be even greater than normal due to unfamiliarity with the area. This requirement is especially needed since the industry is starting to lock out roamer calls because of excessive fraudulent calls.

7. False alarms from emergency beacons in the maritime area have caused a serious waste and diversion of SAR response resources. This has led to a requirement for a two action activation to initiate beacon transmission. ICSAR notes comments (AT&T) that access to E911 should not deviate from the normal calling pattern used by wireless phones, (e.g. the use of the send key after the number is entered) because direct access without the send key could lead to a plethora of false calls. Without attempting to define the method of control, ICSAR urges the Commission to require at least two actions to initiate a 911 call, and rule out the use of a single "panic button" configuration.

8. ICSAR notes comments by ORBCOMM that a national data base of PSAPs must be created before MSS systems can route distress messages to the appropriate PSAP. ICSAR agrees that formation of a national data base for routing of calls is essential to the compatibility of the MSS systems with the PSAPs since messages received at a MSS satellite ground station must be routed throughout the nation. The National Emergency Number Association (NENA) is developing a national data base of PSAPs. ICSAR also agrees with comments that address database maintenance (Telecom Industry Association) required for operation of E911. The national database of PSAPs and databases containing calling party identification must be maintained to ensure response system effectiveness. The Commission's rules should take this factor into account.

9. Many responses concerning priority for 911 calls advocate an industry study (Northern Telecom, Vanguard, NYNEX and others) to allow for development of standards. Bell South Corporation points out potential pitfalls of placing 911 calls at the beginning of the queue.<sup>5</sup> ICSAR believes that though it is essential to establish some priority handling of E911 calls, the Commission should also take into account needs for emergency response and rescue personnel to obtain service in performance of their duties. It has been the experience of disaster response personnel in emergencies such as hurricanes and earthquakes that potential use of cellular phones as the only available communications has been severely limited by extensive public system use.

10. In the NPRM the Commission states that it has authority to preempt state regulation that affects interstate service when it

is not possible to separate the interstate and intrastate components of the service. ICSAR notes a number of responses which call for the rules to preempt state and local regulations (GTE, BellSouth, AT&T, CMT Partners and others). ICSAR believes the Commission should preempt state regulations of E911 compatibility to ensure nationwide deployment of consistent technology. In particular, MSS providers need a uniform interface to interconnect with their one or two gateways to the PSAPs in various states. A possible example of the problems that lack of national standards could generate was pointed out by Springwich Cellular in describing that it provides the location of the cell site in Connecticut, but is unable to provide the same information in Massachusetts due to restrictions in its interconnection arrangements with the local exchange carrier.

11. ICSAR notes the comment by AT&T: "the achievement of E911 compatibility for wireless services will require interoperability of three separate service elements: the wireless network, the landline LEC network, and the PSAP." ICSAR agrees with AT&T and believes that success or failure of the Commission's objective will hinge largely on whether or not a total systems approach is taken by the Commission. Failure on the part of any one of the service elements, or failure to provide for appropriate integration or linkage of these elements, will lead to failure of uniform national E911 system implementation, and overall system success.

12. Another aspect that should be addressed by the Commission is the extent that ITU's Future Public Land Mobile Telecommunications System (FPLMTS) standards may affect national standards. We believe that immediate adoption of general performance criteria is necessary so the wireless user can have instant access to emergency service providers. The record in this proceeding demonstrates that wireless service providers are capable of providing basic emergency caller information. We note that the most contentious issue expressed by LEO providers and small cellular telephone companies in the comments filed in this proceeding is one of cost and who should bear it.

13. We believe that basic emergency caller information, such as Caller ID, ANI, and basic ALI, can and should be provided by all wireless systems. Some of this information is already being provided by some cellular carriers.

14. Basic ALI should consist of location information which is already inherent in wireless systems, such as cell site number, doppler location information, and GPS where wireless terminals are equipped with this technology. We realize that location accuracy may not be very precise initially, especially for the first generation of LEO satellite systems and cellular systems,

but we are confident that improvements in this area are forthcoming (see comments of KML Technology, Elert Associates, and Tandler Cellular). Every effort should be made by all wireless providers to immediately provide some form of ALI, and to eventually provide precise location capabilities.

15. We recommend immediate FCC action on the following items.

- basic ALI
- reliable calling and communicating with the RCC
- caller ID connectivity to wireline carrier
- signaling system 7 implementation
- privacy protection for emergency calls
- compatibility requirements for voice and data
- store-and-forward systems provide operators
- geographic area identity for emergency calling
- means of reaching PSAP on 24-hour basis
- emergency call capability on service-initialized units
- labeling requirements

16. Indeed, detailed technical requirements concerning certain information, like ALI, call-back capability, priority of the caller, and routing, initially may require further study. We suggest that examination of these issues be undertaken by a committee such as the Joint Experts on 911 (JEM). However, these studies should not delay the adoption of the proposed rules setting forth general performance criteria.

#### SUMMARY

ICSAR strongly endorses the Commissions objective of providing enhanced 911 capability from wireless services. Recognizing that there may be many impediments to the implementation of full E911 compatibility in the near term, we urge the commission to begin implementation with the phase one ALI and call back capability as soon as possible. In addition, we urge the Commission to seek innovative ways and means to provide a total system approach to the implementation of a national E911 system.

The following summarizes the ICSAR position:

- \* In the near term implement the phase one location requirement and the callback number.
- \* Include "Big LEO" MSS systems in the requirement for E911 compatibility.
- \* If an advisory committee is formed, include search and rescue and MSS representation.

- \* Include "Little LEO" MSS systems with a later implementation schedule.
- \* Omit the phase 2 location requirement.
- \* Require wireless systems to pass 911 calls without validation.
- \* Require at least a 2 action initiation for 911 calls.
- \* Address the creation of a national data base of PSAPs and the maintenance of all 911 data bases.
- \* Address the establishment of priority for 911 calls in context with the need for wireless communications priority for disaster support personnel and others needing priority in extreme circumstances.
- \* Preempt state regulations in the interest of national compatibility.
- \* Apply a total systems approach in the implementation of E911 for wireless services including international compatibility that might be available from FPLMTS activities.
- \* Implement general provisions which are technically feasible and important to safety now, while specific requirements for future enhancements are developed.

#### FOOTNOTES

1. We note that current interface equipment and software does not allow for receipt of a 10 digit number by the PSAP, however, it would appear reasonable to require 7 digit number reporting as an interim step so that the majority of calls in any given PSAP area would have the benefit of this capability as soon as possible.
2. The "Little LEO" category of MSS systems will not provide voice service, however, near real-time, 2-way communications will be available via datalinks established by these systems with the use of simple, low cost terminals.
3. The little LEO terminals are expected to be small and low cost with 2-way messaging capability, therefore, they can provide SAR cases with a vast improvement from currently available emergency beacons.
4. In the New York City area roamers must use a PIN number to gain access to the cellular network.

5. Quote from BellSouth Corporation response page 18 & 19:  
"Further, queuing 911 calls could delay other non-911 calls, such as calls to poison control centers and suicide hotlines and calls placed by disaster relief crews and other emergency personnel."
6. NPRM page 29, paragraph 59.
7. Comments of Springwiche Cellular L.P., page 4

  
G. A. PENINGTON  
Chairman, Interagency Committee  
on Search and Rescue